

SHOWER REPLACEMENT BID FOR:

Lake County Detention Center
551 W. Main St.
Tavares, FL 32778

1. GENERAL

- Perform all work in accordance with applicable codes, local ordinances, and requirements of Lake County, FL.
- The Contractor will provide all required permits, plans, engineering, and inspections to provide a completed project.
- The Contractor must attend an on-site mandatory pre-bid walk through and is responsible for obtaining measurements to validate all materials required and all conditions which may impact the project.
- Lake County shall remove the existing ceramic tile and vct in the shower and drying areas a minimum of 24 hours prior to the Contractor starting work.
- Lake County shall provide a 50kw generator with fuel for the use of the Contractor if needed for the project.

2. PURPOSE

- Provide all materials, labor, and equipment to prepare and install eight (8) seamless epoxy shower systems and eight (8) - 3' x 3' drying areas at the Lake County Detention Center. The seamless shower systems shall include walls, ceilings, and floors. The drying areas shall include a perimeter speed bump type of threshold. The speed bump thresholds at the drying areas will be formed using the coating material. The Contractor shall float the floor to remove any step down from drying area and ensure adequate slope to provide positive drainage from the drying areas to the shower area and from the shower areas to the drains.

3. TECHNICAL REQUIREMENTS

3.1 Aggregate Filled Epoxy Floor Coating:

- Compressive Strength: 12,400 psi after 7 days (ASTM C-579).
- Tensile Strength: 2,200 psi (ASTM C-307).
- Flexural Strength: 4,800 psi (ASTM C-307).
- Bond Strength: >400 psi or substrate failure (ASTM D-4541).
- Indentation: No indentation (MIL-D-3134F).
- Abrasion Resistance: 0.04 gm max. loss (ASTM D-4060, Taber Abrader).
- Hardness: 85-90 Shore D (ASTM D2240).
- Flammability: Self extinguishing. Burning 0.25 inches max (ASTM D-635).
- Thermal Coefficient of Linear Expansion: 3.5×10^{-5} C (ASTM E-831).
- Water Absorption: 0.1% (ASTM C-413).
- Cant cove around the perimeter of the shower base

3.2 Wall, Ceiling & Floor Seamless System:

- Compressive Strength: 11,700 psi (ASTM D-695-77).
- Tensile Strength: 3,900 psi (ASTM D638-77a).
- Tensile Elongation: 2% (ASTM D 638-77a).
- Flexural Modulus: 1.8×10^6 psi (ASTM D 790-71).
- Flexural Strength: 10,400 psi (ASTM D 790-71).
- Water Absorption: 0.1% (ASTM C 413).
- Heat Resistance Limitation: Continuous exposure: 140 F; Intermittent spills 200 F.
- Abrasion Resistance: 0.03 gm.maximum weight loss (ASTM D 4060, Taber Abrader CS-17 wheel, 1,000gm load, 1,000 revolutions).
- Flammability: Self-extinguishing (ASTM D 635).
- Hardness: 88 Shore D (ASTM D 2240).
- Bond Strength: >400 psi or substrate failure (ASTM D4541).

3.3 Product Composition:

- Must contain chopped fiberglass strands, premixed into the material.
- Must be spray applied.
- Must form a horizontal matrix within the finished coating.
- All coatings used must be 100% solids products.
- Color must be continuous throughout the entire system.

4. SUBMITTALS

4.1 Literature:

- Prior to the start of the project submit: One (1) copy of manufacturer's product literature indicating technical data.
- Prior to the start of the project submit: One (1) copy of manufacturer's Installation and Application Guide.
- Prior to the start of the project submit: One (1) copy of manufacturer's Material Safety Data Sheets.

5. QUALITY ASSURANCE

5.1 References:

- Cited Standards are incorporated herein by reference and govern the work. Pamphlet No. 03732, International Concrete Repair Institute (Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays).

5.2 Single Source Responsibility:

- Obtain primary resinous wall and ceiling materials including hardening agents, finish or sealing coats from a single manufacturer with not less than five (5) years of successful experience in manufacturing and installing the principal materials

described in this section. Provide secondary materials only of type and from a source recommended by the manufacturer of the primary material.

5.3 Contractor Experience:

- Provide a letter of training certification from the manufacturer/distributor stating that the Contractor is an approved installer of the products specified in this Section. ***Must be submitted with bid.***
- Submit a written description of the Contractor's experience with the specified material over the last two (2) years. Include job size (in square feet) and complexity of projects. ***Must be submitted with bid.***
- List a minimum of three (3) projects with different Owners giving contact names and phone numbers. ***Must be submitted with bid.***

5.4 Sampling of Material:

- When directed by Lake County, obtain test samples from material stored at the project site or source of supply. Select samples at random from sealed containers.

5.5 Manufacturer Supervision:

- A representative of the materials manufacturer must be available to be present on site for spot checks during the preparation and for all phases of the installation of the specified coating materials.

6. DELIVERY, STORAGE AND HANDLING

6.1 Delivery of Materials:

- Deliver materials to project site with labels legible and intact.

6.2 Storage of Materials:

- Store only acceptable project materials on project site as directed by Lake County.
- Store in a suitable location, convenient to progress of work.
- Restrict storage to paint and coating materials and related equipment.
- Comply with health and fire regulations.
- Storage temperature shall be between 65°F and 90°F or such other ambient temperature conditions as may be specifically recommended by product manufacturer.

7. PROJECT CONDITIONS

7.1 Environmental Requirements:

- Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied. Surfaces to be coated shall be between 65°F and 90°F. Do not apply coating system at temperatures beyond those limits stated in the manufacturer's technical data sheet unless given written permission by the manufacturer.

- Do not apply finish in areas where dust is being generated.

7.2 Protections:

- Cover or otherwise protect finished work of other trades and surfaces not being coated concurrently or not to be coated.

8. PRODUCTS

8.1 Approved Epoxy Coating Manufacturers:

- Prime Coat Coating Systems
- Sauereisen
- Fox Industries

8.2 Substitutions:

- Equivalent materials of other manufacturers may be substituted on approval of Lake County. Request for substitution shall include manufacturer's literature for each product giving name, generic type, descriptive information, performance and test data, and evidence of satisfactory past performance. No request for substitution shall be considered that would decrease film thickness and/or number of coats or offer a change in the generic type of coating specified.
- No substitution shall be considered unless request for approval has been submitted with the bid. The burden of proof of the merit of the proposed substitute is upon the proposer. Lake County's decision of approval or disapproval of the proposed substitution shall be final.

9. MATERIALS

9.1 Epoxy Wall/Ceiling System:

- Must contain chopped fiberglass strands, premixed into the material.
- Spray-applied, fiber-reinforced, 100 percent solids, accelerated aliphatic amine cured epoxy system with a non-leaching antimicrobial.
- Must be spray applied.
- Must form a horizontal matrix within the finished coating.
- All coatings used must be 100% solids products.
- Color must be continuous throughout the entire system.

9.2 Aggregate Filled Epoxy Floor Coating:

- Spray-applied, fiber-reinforced, 100 percent solids, accelerated aliphatic amine cured epoxy system with a non-leaching antimicrobial.
- All coatings used must be 100 percent solids.
- Color must continue throughout the entire floor system.

- Must be capable of achieving a chemical bond with wall system.
- Use only manufacturer's best grade ultra clear finish coat material.

10. FINISH

10.1 Color(s):

- As selected by Lake County from manufacturer's standard colors.

11. MIXING

11.1 Walls:

- Accomplish job mixing and application only when acceptable to Lake County.
- Mix components only in containers furnished by the manufacturer.
- Proportioning of two-part and three-part coatings shall be done in strict accordance with manufacturer's recommended procedures.
- For all mixing operations, the flooring system components shall be considered as hazardous materials. Read and observe container label warnings and Material Safety Data Sheets for health and safety information prior to starting mixing operations.
- Do not reseal mixed material. Permit final chemical set to occur in the container and when set has been achieved; dispose of hardened material by legal means.
- Do not apply any material that has exceeded shelf and pot life as determined by manufacturer.

11.2 Floors:

- Accomplish job mixing and application only when acceptable to the Owner.
- Mix components only in containers furnished by the manufacturer.
- Proportioning of two-part and three-part coatings shall be done in strict accordance with manufacturer's recommended procedures.
- For all mixing operations, the flooring system components shall be considered as hazardous materials. Read and observe container label warnings and Material Safety Data Sheets for health and safety information prior to starting mixing operations.
- Do not reseal mixed material. Permit final chemical set to occur in the container and when set has been achieved; dispose of hardened material by legal means.
- Do not apply any material that has exceeded shelf and pot life as determined by manufacturer.
- The drying areas shall include a perimeter speed bump type of threshold. The speed bump thresholds at the drying areas will be formed using the coating material. The speed bump thresholds at the upper shower drying areas will be moved in to approximately one foot to enable the side doors to be opened.

12. EXECUTION

12.1 Examination:

- Examine surfaces scheduled to receive coatings for conditions that will adversely affect execution, permanence or quality of work and which cannot be put into an acceptable condition.
- Notify Lake County immediately upon determination that surfaces scheduled to receive coatings are unacceptable for proper adhesion or subsequent performance.
- Do not proceed with surface preparation or coating application until conditions are suitable.

13. INSTALLATION

13.1 Ceilings/Walls

- Remove/prepare existing substrates in accordance with manufacturer's instructions and ICRI CST2.
- Do not apply initial coating until moisture content of surface is within limitations recommended by coating manufacturer and never install coatings when the substrate temperature is less than 5 degrees above the dew point unless specifically approved in writing by the manufacturer.
- Apply primer at coverage rates recommended by the Manufacturer, but at a rate that will produce a dry film thickness not less than 8 mils. Brush or rollers should be used to apply the primer.
- After primer has become tacky, apply the fiber reinforced epoxy system using a 45:1 air powered airless spray rig with a gravity fed hopper attachment.
- When the fiber-reinforced epoxy system has cured, abrade the substrates to remove exposed fiberglass and other surface imperfections. Apply glazing coat with a brush, roller or airless sprayer. A total DFT of the complete system shall be a minimum 45 mils thick.
- Keep all application equipment free from contaminants and suitable for the finish required.
- Comply with recommendation of product manufacturer for cure times and re-coat windows. Unless specifically allowed by the manufacturer re-coat windows will not be violated.
- Finish coats shall be smooth to the touch and free of skipped or missed areas. An orange peel texture with occasional fiberglass lumps is normal and acceptable.
- Where walls and floors abut and are both of a resinous material, obtain all coating materials from a single manufacturer being sure to meet all re-coat windows to insure a seamless installation.
- Make edges where adjoining other materials or colors, clean and sharp with no overlapping.
- Change colors at points designated by Lake County and/or on color schedule where colors differ between adjoining spaces or rooms and where door frames match wall colors.

13.2 Floors:

- Ensure adequate slope to provide positive drainage from the drying areas to the shower areas and from the shower areas to the drains.
- Do not apply initial coating until moisture content of surface is within limitations recommended by coating manufacturer and never install coatings when the substrate temperature is less than 5 degrees above the dew point unless specifically approved in writing by the manufacturer.
- Apply elastomeric primer at coverage rates as recommended by manufacturer but at a rate that will produce a dry film thickness of not less than 25 mils. Airless spray, brushes, rollers or squeegee may be used in coating application.
- Apply two intermediate coats of clear, mixed liquids at a rate of one (1) gallon per 80 square feet of floor surface or approximately 20 mils wet film thickness. After each intermediate coat, broadcast onto the liquid surface colored quarts aggregate passing 40 to 60 mesh screen to rejection. Remove excess aggregate after film is dried by broom sweeping or industrial grade vacuum. A total dry film thickness of the intermediate coat shall be not less than one hundred fifteen (115.0) mils including encapsulated aggregate.
- When the intermediate coats have cured and excess aggregate has been thoroughly removed, apply the final clear glazing coat to a dry film thickness of 20.0 mils. Apply glazing coat with a brush, roller or airless sprayer. The finished floor must meet ADA specifications for this project. Use a Sullmair FSC 2000-1346 floor tester to validate ADA requirements. Please note to achieve the required ADA coefficient of friction, additional topcoat material or anti-slip additives may be necessary. A total DFT of the broadcast system shall be a minimum 125 mils thick.
- Keep all application equipment free from contaminates and suitable for the finish required.
- Comply with recommendations of manufacturer of high performance floor system for drying time between prime and succeeding coats.
- Finished product shall be uniform in color and texture and free of skipped or missed areas.
- Where walls and floors abut and are both of a resinous material, obtain all coating materials from a single manufacturer being sure to meet all re-coat windows to insure a seamless installation.

14. CLEANING

- Remove spilled, splashed or splattered coating materials from all surfaces.
- Do not mar surface finish of items being cleaned.
- The Contractor shall repair any areas of the site damaged as a result of the work. This includes, but is not limited to, sod, trees, plants, sidewalks, curbing, parking lot, irrigation, etc. All repairs are to be made using like materials.
- Remove surplus material, equipment and debris from site. Leave site clean and tidy.
- Dispose of all waste materials in accordance with all federal, state, and local regulations.

15. COMPLETION DATE

- The work shall be completed within Thirty (30) calendar days from issuance of the notice to proceed.

16. HOURS OF OPERATION

- Work may be performed at all hours - day or night.

17. BACKGROUND CHECK

- All names and social security numbers of employees, subcontractors, and representatives of the Contractor that will be on County property shall be required to be submitted to the Lake County Sheriff for a background check prior to the issuance of a notice to proceed or purchase order.

18. WARRANTY

- The contractor shall provide a **one (1) year** warranty to include all materials and labor. Defects shall be made good promptly, within the warranty period.

19. MANDATORY WALK-THRU

- A mandatory walk-thru will be held at the site. During this walk-thru Contractors shall have the opportunity to view existing showers which have recently been renovated. These showers meet the requirements of these specifications and also meet the expectations of the finished product for this RFQ.

END OF SECTION